

ELECTRONIC DISTRIBUTION SYSTEM FOR 36V AUTOMOBILES**ABSTRACT OF THE DISCLOSURE**

An electrical power conversion system for converting power from one voltage to another, especially for converting a higher-voltage, direct current electrical power system, such as a thirty-six volt to forty-two volt (36V-42V) direct current system for vehicles, into a voltage acceptable for powering lower voltage equipment, such as those using twelve volt to fourteen volt (12V-14V) DC vehicle electrical power systems is disclosed. The invention provides the ability to control the operating states of the loads by coupling a control signal to the vehicle's electrical power bus. The invention can take advantage of current or future DC-to-AC inverter or DC-to-DC converter technology and anticipated vehicle electrical systems to devise a electrical power conversion and control system meeting the needs of various vehicle loads.